

Serial No. 09/342,284
Attorney Docket No.: 300151-41150
Amendment

CLEAN COPY OF PAGE 1 OF SPECIFICATION

METHOD FOR MANUFACTURING PAPER HAVING VARIABLE CHARACTERISTICS

This application is a divisional of U.S. App. Serial No. 09/342,284, filed June 29, 1999, the contents of which are hereby incorporated by reference.

The present invention is directed to a method for manufacturing colored striped paper or security paper, and more particularly, to a method for manufacturing colored striped paper by introducing one or more coloring agents to the pulp before the pulp enters the headbox.

BACKGROUND OF THE INVENTION

Paper is typically manufactured by forming a pulp slurry, which is a mixture of fibers suspended in a solution of primarily water. The fibers can be, for example, cellulose-based fibers (i.e. wood fibers), in which case the slurry is termed pulp slurry. Once the pulp or slurry is produced, it is fed to a distribution system that includes a dilution water header, a distributor, and a headbox. The distributor receives the incoming pulp slurry and is typically utilized to normalize the properties of the slurry, such as its consistency, pressure, and velocity. The dilution water header supplies dilution water that is used to control the consistency of the pulp exiting the distributor. Flow exiting the distributor is fed through a plurality of delivery lines that deliver the flow to a series of nozzles distributed across the headbox. The nozzles deposit the slurry, in "jet" form, onto a moving papermaking "wire" to form a sheet on the papermaking wire. The sheet is then dewatered, pressed, dried, and treated to form the finished product.

It may be desired to make colored paper that has stripes that extend in the machine direction (i.e. extend in the longitudinal direction of the deposited sheet). However, in order to make colored paper in conventional papermaking systems, dyes, pigments or other colorants are added to the pulp slurry such that all of the pulp slurry is dyed, and the resultant paper web is uniformly colored throughout its thickness. This method does not allow for the selective introduction of color, and therefore the color of the finished paper product is limited to a single shade or color. Some paper mills produce paper sheets having a colored "marbled" appearance. These sheets are manufactured by drizzling small droplets of dye from a pipe located a few inches above the freshly deposited pulp on the wire. This method of dye application produces a

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Divisional of Serial No. 09/342,284

IN THE SPECIFICATION:

Amend the title to read --METHOD FOR MANUFACTURING PAPER HAVING

~~✓ 2~~ VARIABLE CHARACTERISTICS

Page 1, line 3 add the following paragraph:-~~This application is a divisional of U.S.~~

~~✓ 3~~ App. Serial No. 09/342,284, filed June 29, 1999, the contents of which are hereby
incorporated by reference.

IN THE ABSTRACT:

Replace the originally-filed Abstract with the following replacement Abstract:

A method for manufacturing paper having a variable characteristic in a crossmachine direction including the steps of feeding a slurry to a distributor and delivering the slurry from the distributor to a headbox through a plurality of delivery lines. The delivery lines are coupled to the headbox at a plurality of locations spaced across the headbox in a crossmachine direction. The method includes selectively introducing a property altering agent in at least two of the delivery lines at the distributor to selectively alter the properties of the slurry passing through the at least two delivery lines. The method also includes the step of depositing the slurry received by the headbox on a papermaking wire to form paper.

IN THE CLAIMS:

Cancel claims 1-23 and 27-31.

Rewrite claims 24 and 32 such that they read as follows: